E. Public Health* - 15 Items (3%)
"Public health" is the application of knowledge to the identification of society's health needs, and government and private initiatives that address those needs. It includes the optometrist's responsibilities in health promotion and in managing primary health and eye care conditions in populations of people who need optometric services. It is composed of 4 major subdivisions, each dealing with health concerns related to groups of patients, as contrasted with individual direct patient care issues.

1. Epidemiology (4-7 Items)
   A. Quantitative measures
      1. Incidence
      2. Prevalence
      3. Odds ratio
      4. Relative risk
      5. Indices of health
   B. Screening concepts
      1. Sensitivity
      2. Specificity
      3. Predictive value
      4. Yield
   C. Major epidemiological studies
      1. Orinda Vision Screening Study(1957-1959)
      2. Framingham Eye Study
      3. NIH/NEI studies
      4. Baltimore Eye Study
      5. Beaver Dam Eye Study
   D. Research design
      1. Sampling and randomization
      2. Observational vs. experimental studies
      3. Case-control vs. cohort studies
      4. Prospective vs. retrospective studies
      5. Cross-sectional studies
      6. Research ethics
   E. Morbidity and mortality in the United States
      1. General morbidity and mortality patterns
      2. General distribution of eye and vision disorders
      3. Legal blindness in the United States (age-specific causes, age-specific rates)

2. Biostatistics and Measurement (2-3 Items)
   A. Measures of central tendency and variability
   B. Parametric vs. nonparametric measures
   C. Statistical significance
   D. Causal inference
   E. Validity and reliability
   F. Bias

3. Environmental Vision (1-3 Items)
   A. Visual demands and ocular hazards
      1. Work
      2. Home
      3. Recreation
   B. Materials and/or procedures designed for safety or to improve visual performance
      1. Work
      2. Home
      3. Recreation
   C. Influence of environmental changes on visual performance
4. Health Care Policy and Administration (4-6 Items)

A. Organization of health services
   1. Levels of care (primary, secondary, tertiary)
   2. Types of providers (skills and credentials of other providers, referral patterns among providers)
   3. Types of practice (solo/private, group, interdisciplinary)
   4. Delivery settings (offices/clinics, hospitals, health departments, co-management centers, long-term care facilities)
   5. Alternative delivery and managed care systems (HMOs, IPAs, PPOs, VSPs)

B. Planning and regulation
   1. Federal, state and local government
   2. Private agencies
   3. Professional associations

C. Health economics and financing
   1. National health care expenditures
   2. Cost of eye and vision care
   3. Payment mechanisms (fee for service, capitation, prospective payment, retrospective reimbursement, resource based relative value systems)
   4. Cost control measures
   5. Insurance and government sponsored programs

D. Health care personnel
   1. Supply and distribution
   2. Utilization and productivity

E. Health promotion, disease prevention and community optometry
   1. Levels of prevention (primary, secondary, tertiary)
   2. Infection control
   3. Population trends and emerging needs
   4. Eye and vision care needs of high-risk populations
   5. School and community screening programs

F. Quality assurance
   1. Monitoring and evaluation (structure, process, outcome)
   2. Utilization review (retrospective, concurrent, prospective)
   3. Public and private programs

*Note: Test items on the content areas of Public Health will be integrated within and across the four major Clinical Science subdivisions (Systemic Conditions; Ocular Disease/Trauma; Refractive/Oculomotor/Sensory Integrative Conditions; Perceptual Conditions) where appropriate and relevant.